

**Vision Statement**

An efficient network of transportation facilities in the North Central Region is vital to moving people and goods. Transportation affects us all—our lives and livelihoods depend a great deal on a transportation system that offers opportunities for various choices and modes of travel. To many extents our transportation facilities have been provided to meet the travel needs, but they were constructed to accommodate a population of the past. In order to ensure an efficient transportation system for the future, it is important to plan for the growth that continues to occur.

**Stakeholder Involvement**

An internal WSDOT steering committee was formed including representation from Planning, Project Definition, Program Management, Construction, Traffic, TransAid, and the Regional Administrator. The Committee members met several times to focus the efforts of route development planning. Early on, the Committee decided to phase the (RDP) Route Development Plan process.

**Phase 1** Route Continuity; Collection of existing conditions; Existing and projected future Level of Service(LOS); Route deficiencies and identification of future needs; and provide initial screening of environmental concerns.

**Phase 2** Public Involvement in transportation decisions; Land use planning coordinated with transportation needs.

The decision to phase the process was based on: 1) The need to first establish a Region transportation baseline; 2) The economics of time and money needed to produce Route Development Plans; 3) The process is not perfected. This Route Development Plan outlines a vision for the future development of State Routes 28 and 281. This Plan provides recommended improvement strategies to existing and future deficiencies of the transportation system in the SR 28 / SR 281 corridors. Some of the future needs identified in this RDP, such as 4 lane construction, are critical to ensure adequate operation of State Routes 28 and 281.

**Study Limits**

The study limits of this RDP include only that section of SR 28 in the North Central Region. The Plan begins at the junction with US 2 / 97 in the East Wenatchee urban area, and ends at the Lincoln County Line. The milepost limits are from MP 0.00B to MP 79.02. Also, included in this Plan is SR 281, a short interconnecting route between SR 28 at Quincy and Interstate 90 at George.

**Plan Organization**

Transportation data from many sources is brought together in the SR 28 / 281 Route Development Plan and presented in a strip map format. The data is related to a specific location or a highway section within milepost limits, with mileposts shown to the nearest hundredth of a mile. To aid in placing the strip map data in a geographic context, aerial photographs and maps are included. At the top of each page, urban areas are represented by 1997 Wenatchee area orthophotos or 1991 Maintenance orthophotos, and rural areas are represented by parts of quadrangle maps.

**Highways of Statewide Significance**

Transportation facilities of statewide significance are deemed essential public facilities under the Growth Management Act. HB 1487, commonly known as the Level of Service (LOS) Legislation, amends and makes minor changes to several laws including the Growth Management Act (GMA). Essentially, GMA jurisdictions must amend the transportation elements of their comprehensive plans, to reflect the LOS legislation changes by December 31, 2000. This changed Legislation defines certain transportation facilities and services as having statewide significance. These include: The Interstate highway system, and Interregional state principal arterials. HB1487 requires the State give higher priority to correcting deficiencies on those facilities classified as facilities of statewide significance.

SR 28, from the US 2/97 Junction in the East Wenatchee urban area to the SR 281 junction in Quincy, and SR 281, from the Interstate 90 Junction to Quincy, are classified by function as Principal Arterials. As a result, they are automatically designated HSS routes. This corridor connects the greater Wenatchee urban center with the interstate system. The remainder of SR 28, east from Quincy, was not automatically included as a designated HSS route, because it is classified by function as a Minor Arterial.

**Data Sources**

SR 28 / 281 Intersections and Features.....	<i>Transportation Information and Planning Support (TRIPS): State Highway Log / Planning Report.</i>
Freight Tonnage Class.....	<i>Freight and Goods Transportation System (FGTS)</i>
Functional Class / Level of ..... Development	<i>Washington State Pavement Management System (WSPMS)</i>
Access Management / Control.....	<i>Limited Access Route Listing and Access Management Classification Report.</i>
Traffic Data and LOS 1995/2020.....	<i>Transportation Data Office (TDO), Olympia Service Center (OSC). LOS determination from Highway Capacity Software.</i>
Existing Conditions.....	<i>TRIPS: State Highway Log / Planning Report</i>
Deficiencies / Future Needs.....	<i>State Highway System Plan (HSP; Priority Array Tracking System(PATS; and Bridge Preservation Report.</i>
Environmental Conditions <sup>(1)</sup> .....	<i>GIS data through ArcView from Environmental Affairs Office (EAO), OSC; North Central Region (NCR) Environmental Office; and the HSP.</i>

**Data Sources (Continued)**

(1) The Environmental Conditions section provides an initial screening of environmental concerns. The eleven categories of concern reviewed for this RDP are listed here, with the source of data.

- *303d “impaired” Waters.....* *Streams and lakes listed by the State Dept. of Ecology under Section 303d Federal Clean Water Act.*
- *Bull Trout Area.....* *Washington Dept. of Fish and Wildlife.*
- *Steelhead 99 Area.....* *Bonneville Power Admin. For NMFS.*
- *Chinook 99 Area.....* *Bonneville Power Admin. For NMFS.*
- *Priority Habitat Species (PHS) Areas..* *Washington Dept. of Fish and Wildlife 8/99 update.*
- *Cultural Resource Areas.....* *NCR Environmental Office.*
- *Wetlands & Riparian Areas.....* *National Wetlands Inventory w/SRview review.*
- *Fish Barriers.....* *Washington Dept. of Fish and Wildlife.*
- *Well Head Protection Zones.....* *Washington Dept. of Health.*
- *Sensitive Plant Areas.....* *Washington Dept. of Natural Resources -Plant Natural Heritage data.*
- *Noise Abatement Areas.....* *EAO furnished locations through the HSP.*

### **Conclusion**

Planning is an ongoing process and must be flexible in order to incorporate unforeseen trends. One of the long range goals of this plan is to integrate the Department of Transportation's needs with the needs of cities, counties, the traveling public, North Central RTPO, QUADCO, and Colville Confederated Tribes. It is believed that this plan, along with a certain amount of flexibility, will provide a well-integrated transportation system for State Routes 28 and 281.

This long range plan will provide guidance for development of the North Central Region's program of projects as well as guiding the Region's Development Services Team in defining developer impact mitigation measures. The Route Development Plan will be updated periodically to keep pace with changing transportation needs.

The North Central Region Planning Department welcomes your comments and input on this and future *Route Development Plans(RDP)*. Please contact us at:

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**Access Control:** Access control is established to preserve the safety and efficiency of specific highways and to preserve the public investment. Control of access is effected by acquiring rights of access from abutting property owners, and by selectively limiting approaches to the highway.

**Average Daily Traffic (ADT):** The total traffic volume (both directions) that traveled over a highway segment during a one year period divided by the number of days in the year.

**Channelization:** The separation or regulation of conflicting traffic movements into defined lanes of travel to provide safe and efficient movement of vehicles and pedestrians.

**Directional Factor (%D):** Percentage of design hour volume flowing in the peak direction.

**Freight & Goods Transportation System (FGTS):** A statewide network and classification system of state highways, county roads and city streets that carry freight. Routes are classified by total tonnage of freight carried per year:  
T-1: Over 10 million tons  
T-2: 4 million to 10 million  
T-3: 300,000 to 4 million  
T-4: 100,000 to 300,000  
T-5: Over 20,000 in 60 days

**Functional Class:** The WSDOT was directed by RCW 47.05.021 to subdivide all state highways, other than National System of Interstate and Defense Highways, into three Functional Classifications: Principal Arterials; Minor Arterials; and Collectors. The objective of functional classification is to define appropriate purposes of various highways in providing service and influencing development.

**High Accident Corridor (HAC):** A highway corridor one mile or greater in length where a five year analysis of collision history indicates that the section has higher than average collision and severity factors.

**Highways of Statewide Significance (HSS):** 1998, the Legislature passed and the Governor signed HB 1487. This approved legislation requires the Transportation Commission to give higher priority for correcting deficiencies on those facilities classified as facilities of statewide significance.

**K Factor (%K):** Design hour volume as a percentage of Average Daily Traffic (ADT).

**Left Turn Lane (LTL):** One way storage lane for vehicles turning left from one roadway onto another.

**Level of Dev.:** Level of Development represents levels of improvements that were applicable to various sections of highway under normal conditions. In this concept, the state highways were categorized into three improvement levels: Design Standards Level; 3-R (Resurfacing, Restoration, and Rehabilitation); and Maintain Structural Integrity and Operational Safety. SR 28, SR 281, SR 281 Spur, were constructed to 3-R Standards that preserved and extended the service life of the highway and improved highway safety but which did not necessarily increase highway capacity. The Level of Development concept was updated in August 1995 to a Design Matrix process.

**Level Of Service (LOS):**

A qualitative measure that incorporates the collective factors of speed, travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating costs provided by a highway facility under a particular volume condition. Six levels of congestion are given designations from “A” to “F,” with LOS “A” representing the best conditions, and LOS “C” and “D” representing the minimum acceptable quality of service on rural and urban facilities.

Operational characteristics:

**LOS A:** A condition of free flow in which there is little or no restriction on speed or maneuverability caused by the presence of other vehicles.

**LOS B:** A condition of stable flow in which operating speed is beginning to be restricted by other traffic. **LOS C:** A

condition of stable flow in which the volume and density levels are beginning to restrict drivers in their freedom to select speed, change lanes, or pass. **LOS D:** A condition approaching unstable flow in which tolerable average operating speeds are maintained but are subject to sudden variations. **LOS E:** A condition of unstable flow in which operating speeds are lower with some momentary stoppages. The upper limit of this LOS is the capacity of the facility.

**LOS F:** A condition of forced-flow in which speed and rate of flow are low with frequent stoppages occurring for short or long periods of time; with density continuing to increase causing the highway to act as a storage area.

**Milepost:** A state highway mile marker. State highway mileposts begin at zero on the southern terminus of a north/south route (odd numbered routes) and the western terminus of an east/west route (even numbered routes).

**Mobility Restriction:** Highway congestion where the Level of Service (LOS) falls below the acceptable minimum: LOS C for rural highways and LOS D for urban highways.

**National Highway System**

**(NHS):** A system designated by Congress that contains all interstate routes, a large percentage of urban and rural principal arterials, and strategic highways and connectors. There are over 3000 miles of state highways that are NHS routes.

**Regional Transportation Planning Organizations**

**(RTPO):** Authorized by the legislature in 1990 as part of the Growth Management Act. They are voluntary organizations with representatives from state and local governments to coordinate transportation planning activities within a region. The North Central RTPO is composed of Okanogan, Chelan, and Douglas Counties. QUADCO (Quad County) is composed of Adams; Grant, Lincoln, and Kittitas Counties.

**Right Turn Pocket (RTP) and Right Turn Taper (RTT):** Used at a minor intersection where a deceleration lane is not required and turning volumes indicate a need to offer an earlier exit to right-turning vehicles.

**Wye Intersection (Y):** An intersection with three legs in the general form of a “Y” and the angle between two legs is less than 60 degrees; Used for a one way diverge or merge operation.